WHAT IS CLAIMED IS:

1. A load receiver (10) for a balance with an arrangement of arms (11) designed to support weights, wherein the load receiver (10) has a first depression sloped at a variable first slope angle towards a mid-point (32) of the load receiver.

2. The load receiver (10) of claim 1, wherein the load receiver (10) has at least one first step in the first depression.

3. The load receiver (10) of claim 1, wherein the load receiver (10) has at least one first horizontal portion (34) for disc-shaped weights (15).

4. The load receiver 10 of claim 1, wherein the arms (11) of the load receiver (10) have a top surface (33) that is slanted perpendicular to a direction pointing towards the midpoint (32) of the load receiver.

5. The load receiver (10) of claim 1, wherein the arms (11) have bends in a lateral direction.

6. The load receiver (10) of claim 1, wherein the

arms (11) are wing-shaped, grouped around the mid-point (32), and have a common root portion (31).

7. The load receiver (10) of claim 6, wherein the load receiver (10) comprises four arms (11) arranged mirror-symmetrically in relation to a vertical plane through the mid-point (32).

8. The load receiver (10) of claim 7, wherein the four arms (11) are arranged in two pairs of arms, the arms of a pair enclosing an angle of less than 90°.

9. The load receiver (10) of claim 6, wherein the arms (11) have a variable width from an outer end to the mid-point (32).

10. The load receiver (10) of claim 1, wherein the load receiver (10) is made of one of a plastic material and a plastic-coated metal.

11. The load receiver (10) of claim 1, wherein the load receiver is mounted on a load-receiver frame (17) and the load-receiver frame (17) is freely suspended.

12. A loading stage (1) for a balance, wherein the

balance comprises a load receiver (10) with an arrangement of arms (11) designed to support a weight, and wherein the loading stage (1) comprises at least one weight-placement device (5) arranged so that the load receiver (10) can reach through the weight-placement device (5) without touching the latter, the loading stage (1) and the load receiver (10) being moveable up and down in relation to each other, and wherein further the at least one weight-placement device (5) has a second depression sloped towards a center (23) of the weight-placement device (5), and the at least one weight-placement device (5) has an open space in an area of the center (23).

13. The loading stage (1) of claim 12, wherein the weight-placement device (5) has resting points for the weight and a free space (26) between said resting points, wherein the load receiver (10) has seating points for the weight, and wherein said resting points and said seating points are close to each other when the weight-placement device (5) is positioned so that the load receiver (10) reaches through the weight-placement device (5).

14. The loading stage of claim 12, wherein the load receiver (10) has a first depression sloped towards a mid-point (32) of the load receiver, and wherein the first

depression and the second depression are sloped at substantially equal slope angles.

15. The loading stage (1) of claim 12, wherein the second depression is sloped at a variable second slope angle.

16. The loading stage (1) of claim 12, wherein the weight-placement device (5) has at least one second step (24) in the second depression.

17. The loading stage (1) of claim 12, wherein the weight-placement device (5) comprises an arrangement of arcuate, loop-shaped weight-placement members (12).

18. The loading stage (1) of claim 13, wherein the free space (26) is located inside the arcuate loop of the weight-placement members (12) and the latter have a top surface (25) that is slanted towards said free space (26).

19. The loading stage (1) of claim 18, wherein the slant of the top surface (25) varies along the weight-placement members (12).

20. The loading stage (1) of claim 12, wherein the

weight-placement members (12) have lateral breaks in curvature.

21. The loading stage (1) of claim 12, wherein the weight-placement members (12) have a variable width.

22. The loading stage (1) of claim 12, wherein at least one of the loading stage (1), the weight-placement device (5) and the load receiver (10) is made of one of a plastic material and a plastic-coated metal.

23. The loading stage (1) of claim 12, wherein the loading stage (1) comprises a substantially circular plate (2) with a mid-portion (39), said circular plate (2) being movably supported for rotation about an axis through the mid-portion (39) and having at least two loading locations (9) where weight-placement devices (5) are installed.

24. The loading stage (1) of claim 23, wherein the loading stage is further movable up and down, wherein said rotation is motorized and said up- and down-movement is automated for the purpose of automating a weighing process.

25. The loading stage (1) of claim 12, wherein the

weight-placement device (5) is height- and level-adjustable in relation to the loading stage (1).

26. A combination of a load receiver (10) and a loading stage (1); wherein the loading stage (1) has at least one weight-placement device (5); wherein the loading stage (1) and the load receiver (10) are movable up and down in relation to each other and the load receiver (10) passes through the weight-placement device (5) without touching the latter; wherein the load receiver (10) has a first depression sloped towards a mid-point (32) of the load receiver (10), wherein each weight-placement device (5) has a second depression sloped towards said mid-point (32) of the load receiver (10) when the weight-placement device is positioned to put the weight on the load receiver, and wherein each weight-placement device has a free break-through space in an area of the mid-point (32).

27. The combination of claim 26, wherein the weight-placement device (5) has resting points for the weight and free spaces (26) between the resting points, wherein the load receiver (10) has seating points for the weights, and wherein said resting points are close to said seating points when the weight-placement device is in position to place weights on the load receiver (10).

28. The combination of claim 26, wherein the second depression is sloped substantially in conformity with the first depression when the weight-placement device is in position to place weights on the load receiver.

29. The combination of claim 26, wherein the weight-placement device (5) has two arcuate, loop-shaped weight-placement members (12) and the load receiver (10) has four wing-shaped arms (11) arranged in two pairs, and wherein a wing (11) of one pair and an adjacent wing (11) of the other pair embrace each of the two loop-shaped members (12) of the weight-placement device (5) when the latter is in position to place weights on the load receiver.

30. The combination of claim 26, wherein at least one of the loading stage (1), the weight-placement device (5), and the load receiver (10) is made of one of a plastic material and a plastic-coated metal.

31. A mass comparator comprising a balance with a combination of a load receiver (10) and a loading stage (1); wherein the loading stage (1) has at least one weight-placement device (5); wherein the loading stage (1) and the load receiver (10) are movable up and down in

relation to each other and the load receiver (10) passes through the weight-placement device (5) without touching the latter; wherein the load receiver (10) has a first depression sloped towards a mid-point (32) of the load receiver (10), wherein each weight-placement device (5) has a second depression sloped towards said mid-point (32) of the load receiver (10) when the weight-placement device is positioned to put the weight on the load receiver, and wherein each weight-placement device has a free break-through space in an area of the mid-point (32)

32. The mass comparator of claim 31, wherein the weight-placement device (5) has resting points for the weight and free spaces (26) between the resting points, wherein the load receiver (10) has seating points for the weights, and wherein said resting points are close to said seating points when the weight-placement device is in position to place weights on the load receiver (10).

33. The mass comparator of claim 31, wherein at least one of the first depression and the second depression is sloped at a variable slope angle.

34. The mass comparator of claim 31, wherein the second depression is sloped substantially in conformity

with the first depression when the weight-placement device is in position to place weights on the load receiver.

35. The mass comparator of claim 31, wherein the weight-placement device (5) comprises an arrangement of arcuate, loop-shaped weight-placement members (12).

36. The mass comparator of claim 31, wherein the load receiver comprises wing-shaped arms (11), that are grouped around the mid-point (32), and have a common root portion (31).

37. The mass comparator of claim 36, wherein the load receiver (10) comprises four arms (11) arranged mirror-symmetrically in relation to a vertical plane through the mid-point (32).

38. The mass comparator of claim 37, wherein the four arms (11) are arranged in two pairs of arms, the arms of a pair enclosing an angle of less than 90°.

39. The mass comparator of claim 35, wherein the four arms (11) are arranged in two pairs of arms, the arms of a pair enclosing an angle of less than 90°, and wherein an arm (11) of one pair and an adjacent arm (11) of the other pair embrace each of the two loop-shaped members

(12) of the weight-placement device (5) when the latter is in position to place weights on the load receiver.

40. The mass comparator of claim 31, wherein the load receiver (10) has arms (11) with a top surface (33) that is slanted perpendicular to a direction pointing towards the midpoint (32) of the load receiver.

41. The mass comparator of claim 31, wherein at least one of the first depression and the second depression has at least one step.

42. The mass comparator of claim 31, wherein the load receiver (10) has wing-shaped arms (11) with at least one first horizontal surface portion (34) for disc-shaped weights (15).

43. The mass comparator of claim 35, wherein a free space (26) is located inside the arcuate loop of the weight-placement members (12) and the latter have a top surface (25) that is slanted towards said free space (26).

44. The mass comparator of claim 43, wherein the slant of the top surface (25) varies along the weight-placement members (12).

45. The mass comparator of claim 35, wherein the weight-placement members (12) and the arms (11) have lateral breaks in curvature.

46. The mass comparator of claim 35, wherein the weight-placement members (12) and the arms (11) have a variable width from an outer area to the mid-point (32).

47. The mass comparator of claim 31, wherein at least one of the loading stage (1), the weight-placement device (5), and the load receiver (10) is made of one of a plastic material and a plastic-coated metal.

48. The mass comparator of claim 31, wherein the loading stage (1) comprises a substantially circular plate (2) with a mid-portion (39), said circular plate (2) being movably supported for rotation about an axis through the mid-portion (39) and having at least two loading locations (9) where weight-placement devices (5) are installed.

49. The mass comparator of claim 31, wherein the loading stage is rotatable, and wherein said rotation is motorized and said up- and down-movement is automated for the purpose of automating a weighing process.

50. The mass comparator of claim 31, wherein the weight-placement device (5) is height- and level-adjustable in relation to the loading stage (1).

51. The mass comparator of claim 31, wherein the load receiver is mounted on a load-receiver frame (17) and the load-receiver frame (17) is freely suspended.